DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-001508 Address: 333 Burma Road **Date Inspected:** 04-Feb-2008

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1500 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Xu Le Feng, Ye Yong Jun, Sha Zi**G, WIL Pyresequti**ng Yes No

Inspected CWI report: Yes No N/A **Rod Oven in Use:** Yes No N/A **Weld Procedures Followed:** Yes N/A N/A **Electrode to specification:** No Yes No Yes N/A N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:**

Delayed / Cancelled: Yes No N/A

34-0006 **Bridge No: Component:** Tower Mock-ups and OBG

Summary of Items Observed:

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

Tower Fabrication Facility

89M Mock-up Assembly

The Quality Assurance Inspector generated an incident report pertaining to non continuous backing and tack welds on backing not welded the full length of the backing on corner stiffener assemblies. See Caltrans Incident Report dated 2-4-08 for further information.

The Quality Assurance Inspector observed ZPMC performing cutting operations on there cutting table utilizing a natural gas and oxygen mix, cutting diaphragm plates identified as P306 and P414 for the 23M elevation.

Bay 1

The Quality Assurance Inspector observed ZPMC squaring the length of closed ribs on the milling machine. Eight ribs were stacked and being milled simultaneously. The Quality Assurance Inspector measured the ribs to be approximately five meters in length, 12 millimeters in thickness and 790 millimeters in width. The Quality Assurance Inspector observed ZPMC drilling bolt holes in the closed ribs. ZPMC was observed beveling closed ribs in preparation for the partial joint penetration connection to the deck plate. ZPMC Quality Control would measure the bevel angle and record the values on the closed rib. The general appearance of the bevel appeared to be rough and contain sharp edges. ZPMC was observed bending closed ribs and performing dimensional inspections. On a previous date an incident report was generated pertaining to the use of three steel rulers in an

WELDING INSPECTION REPORT

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attempt to measure the height of the closed ribs. The Quality Assurance Inspector observed ZPMC using a caliper type device to measure the height of the ribs providing a more accurate value. Below is a digital photograph illustrating the device.

Bay 2

The Quality Assurance Inspector observed ZPMC grinding the transition welds at skin C in preparation for fitting up interior bolted connection plates on the 114M lower Mock-up. In addition ZPMC was observed drilling 30 millimeter bolt holes on interior bolted stiffener connection plate A69.

Bay 3

The Quality Assurance Inspector witnessed ZPMC Quality Control performing visual inspection to Bottom Plate 013. ZPMC marked several tack welds for repair. The tack welds appeared to contain centerline cracks.

Bay 7 and 8

The Quality Assurance Inspector observed no ZPMC personnel working in bays 7 and 8.



Summary of Conversations:

As stated in the contents of the above report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Bertlesman, Greg	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer